



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Tracey BROWN

Group Art Unit: 1615

Serial No.: 09/889,203

Examiner: B. M. Fubara

Filed: March 13, 2002

Atty. Dkt. No.: 63370/49917

For: **A COMPOSITION AND METHODS FOR
THE ENHANCEMENT OF THE
EFFICACY OF DRUGS**

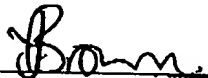
INVENTOR'S DECLARATION UNDER 37 C.F.R. §1.32

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

I, Dr Tracey Brown, do declare as follows:

1. I am an inventor on the above-captioned application. I reside at 23 Norwood St, Flemington, Victoria, Australia and I am a citizen of Australia. I have attached my Curriculum Vitae as Exhibit A
2. I have conducted various experiments designed to identify differences in the anti-cancer activities between low and high molecular weight hyaluronic acid.
3. In a first experiment, a breast cancer line (ZRL-75-1) was tested for its susceptibility to low (30 kD) and high (824 kD) molecular weight hyaluronic acid at varying concentrations of methotrexate. After 3 days, the two hyaluronic acid preparations were compared for their anti-cancer properties, and it was apparent that the high molecular weight preparation was far more effective than the low molecular weight one (FIGS. 1A-B).

4. In a second experiment, a breast cancer line (MDA-MB 231) was tested for its susceptibility to low (30 kD) and high (824 kD) molecular weight hyaluronic acid at varying concentrations of methotrexate. After 3 days, the two hyaluronic acid preparations were compared for their anti-cancer properties, and it was apparent that the high molecular weight preparation was far more effective than the low molecular weight one (FIGS. 2A-B).
5. In a third experiment, the ability of high molecular weight hyaluronic acid to inhibit tumor growth of an irinotecan-resistant tumor was measured. As can be observed, high molecular weight (824 kD) hyaluronic acid was effective at reducing cancer growth compared with an untreated control. (FIG. 3)
6. I hereby declare that all statements made of my own knowledge are true and all statements made on information are believed to be true and further that the statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both under § 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of this application or any patent issued thereon.



Dr. Tracey Brown



Figure 1: Demonstrating that HMW HA is more effective at overcoming acquired drug resistance

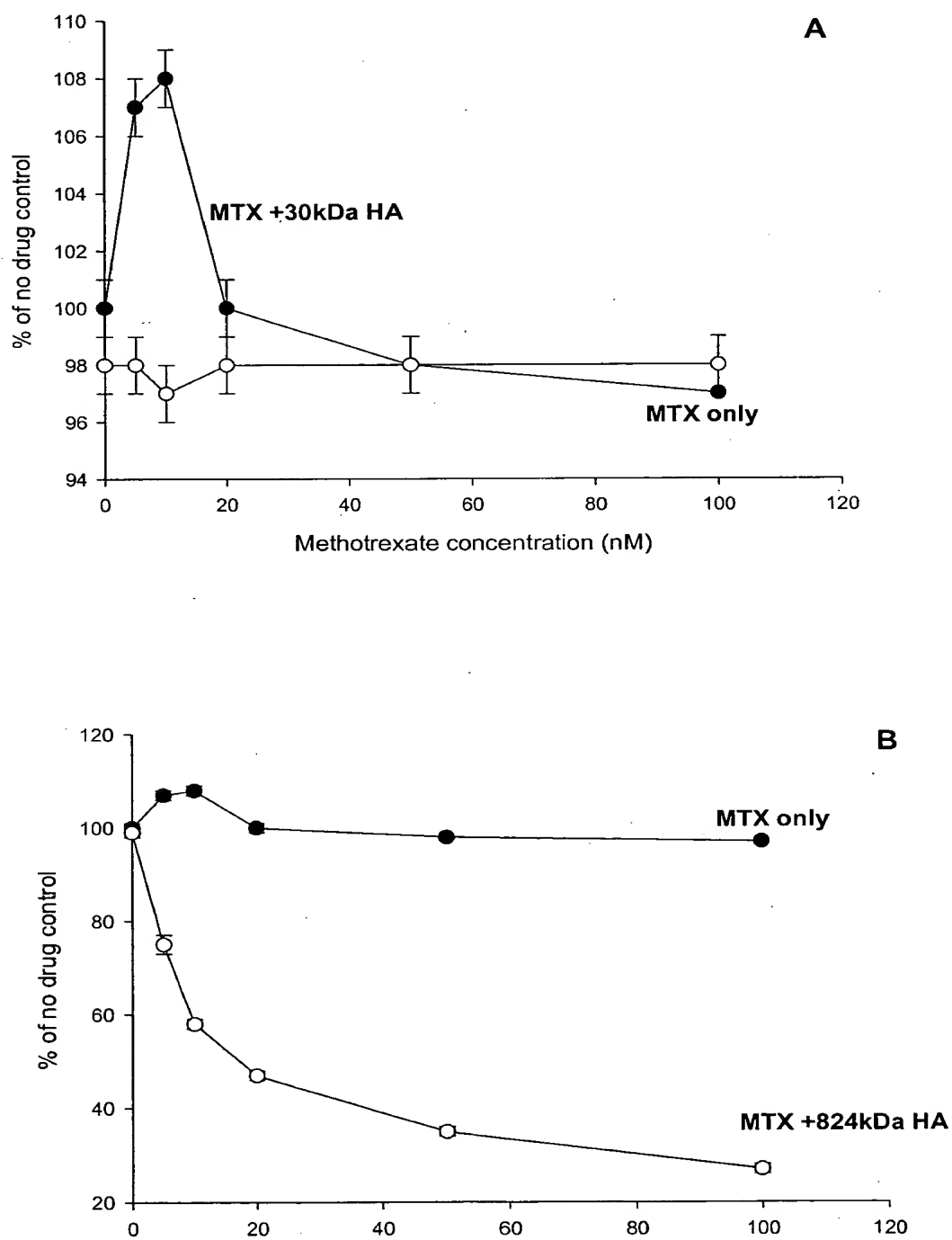




Figure 2

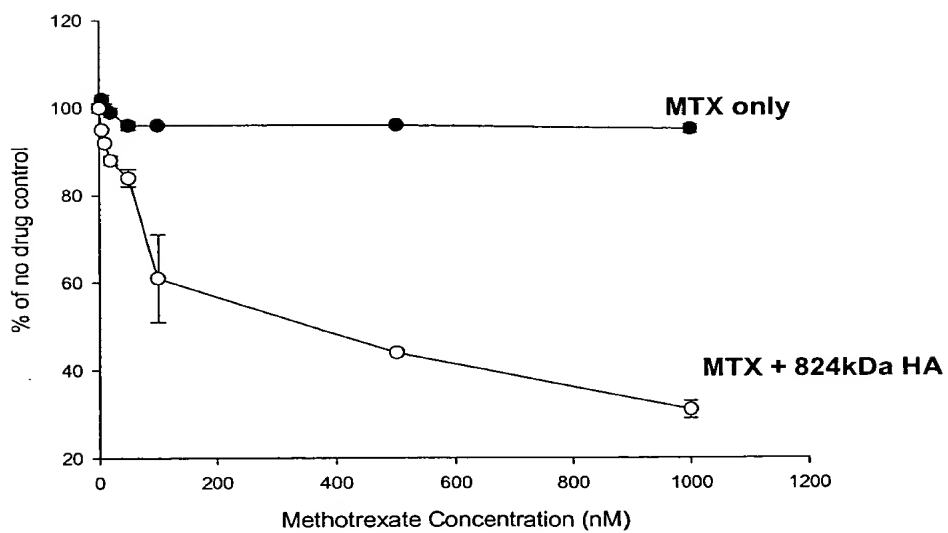
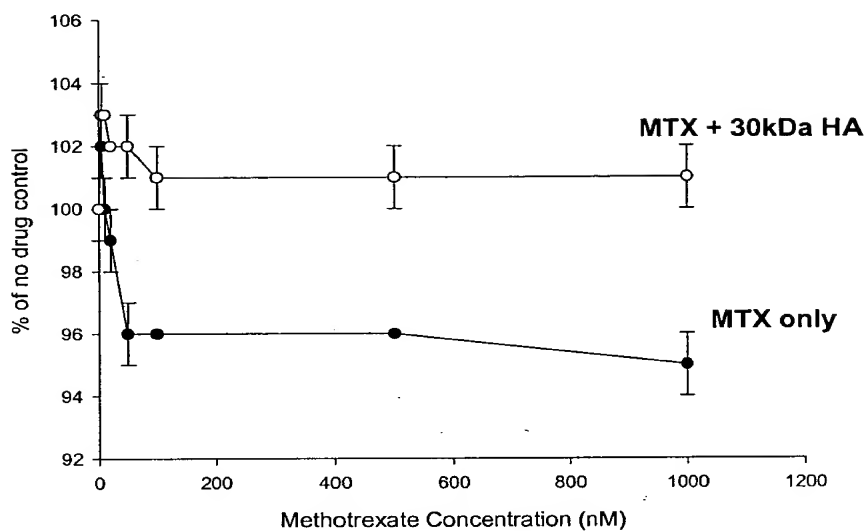




Figure 3: Demonstrating the effect of HA on overcoming the acquired resistance of colon cancer tumours to irinotecan

